

What is claimed is:

1 1. A method for controlling an asynchronous transfer mode switch, comprising:
2 registering an address of an asynchronous transfer mode terminal using an interim local
3 management interface protocol;
4 determining when said asynchronous transfer mode terminal is stable; and
5 when said asynchronous transfer mode terminal is not stable, not applying a private
6 network-to-network interface protocol in said asynchronous transfer mode switch.

1 2. The method of claim 1, said method of controlling said asynchronous transfer
2 mode switch corresponding to a method for restricting overflowing on said private network-to-
3 network interface in said asynchronous transfer mode switch.

1 3. The method of claim 1, said asynchronous transfer mode terminal being
2 determined to be not stable when a time value determined by subtracting a last disconnect time
3 from a current time is less than a preset maximum tolerant time.

1 4. The method of claim 1, further comprising when the asynchronous transfer mode
2 terminal is determined to be stable, applying said private network-to-network interface protocol.

1 5. A method for restricting overflowing in an asynchronous transfer mode switch,

comprising:

when registering an address of an asynchronous transfer mode terminal through an interim local management interface protocol, determining when a data table indicates that said asynchronous transfer mode terminal is not stable;

when there is an address of said asynchronous transfer mode terminal registered in said data table, registering a current time in a last connect time field of said data table;

comparing a first time value determined by subtracting a last disconnect time from a current time with a second time value, said second time value corresponding to a preset maximum tolerant time, said comparing being performed to identify when said asynchronous transfer mode terminal is stable; and

when said asynchronous transfer mode terminal is not stable, not applying private network-to-network interface protocol.

6. The method of claim 5, further comprising when said first time value is less than said second time value, said asynchronous transfer mode terminal being determined to be not stable.

7. The method of claim 5, further comprising applying said private network-to-network interface protocol when said asynchronous transfer mode terminal is determined to be stable.

1 8. The method of claim 5, further comprising:

2 when a timer event is generated, said timer event being of said asynchronous transfer
3 mode terminal detected as being not stable, selecting a predetermined entry in said data table to
4 determine when said selected asynchronous transfer mode terminal is stable; and

5 applying private network-to-network interface protocol when said asynchronous transfer
6 mode terminal becomes stable.

1 9. A method of controlling an asynchronous transfer mode switch, comprising:

2 detecting whether an asynchronous transfer mode address corresponding to an
3 asynchronous transfer mode terminal is stored in a data table, said data table including a plurality
4 of address fields, last connect time fields, and last disconnect time fields, each one of said
5 address fields corresponding to a respective one of said last connect time fields and a respective
6 one of said last disconnect time fields;

7 when said asynchronous transfer mode address is not detected as being stored in said data
8 table, creating a new entry in said data table corresponding to said asynchronous transfer mode
9 terminal, said new entry having a new address field, a new last connect time field, and a new last
10 disconnect time field, setting said new address field in accordance with said asynchronous
11 transfer mode address, setting said new last connect time field in accordance with a current time;

12 when said asynchronous transfer mode address is detected as being stored in said data
13 table, updating an existing last connect time field in accordance with a current time, said existing
14 last connect time field corresponding to said asynchronous transfer mode address;

15 determining whether a time value is larger than a predetermined maximum tolerant time,
16 said time value being equal to a first value subtracted from a second value, said first value being
17 stored in an identified last disconnect time field, said second value corresponding to a current
18 time, said identified last disconnect time field being stored in said data table and corresponding
19 to said asynchronous transfer mode address; and

20 when said time value is not larger than said predetermined maximum tolerant time, not
21 applying a private network-to-network interface protocol in said asynchronous transfer mode
22 switch.

10. The method of claim 9, further comprising:

when said time value is larger than said predetermined maximum tolerant time, updating
said identified last disconnect time field to be equal to a predetermined value, applying a private
network-to-network interface protocol in said asynchronous transfer mode switch.

11. The method of claim 10, further comprising identifying said existing last connect
time field corresponding to said asynchronous transfer mode address.

12. The method of claim 10, said identified last connect time field being selected from
among said new last connect time field and said updated existing last connect time field.

13. The method of claim 12, further comprising:

2 when said time value is not larger than said predetermined maximum tolerant time,
3 detecting that said asynchronous transfer mode terminal is not stable.

1 14. The method of claim 13, further comprising:
2 when said time value is larger than said predetermined maximum tolerant time, detecting
3 that said asynchronous transfer mode terminal is stable.

1 15. The method of claim 14, further comprising:
2 registering an address corresponding to said asynchronous transfer mode terminal using
3 an interim local management interface protocol.

1 16. The method of claim 9, further comprising registering an address corresponding to
2 said asynchronous transfer mode terminal using an interim local management interface protocol.

1 17. The method of claim 16, further comprising:
2 when said time value is larger than said predetermined maximum tolerant time, updating
3 said identified last disconnect time field to be equal to a predetermined value, applying a private
4 network-to-network interface protocol in said asynchronous transfer mode switch.

1 18. The method of claim 9, said identified last connect time field being selected from
2 among said new last connect time field and said updated existing last connect time field.

1 19. The method of claim 9, further comprising:

2 when said time value is not larger than said predetermined maximum tolerant time,
3 waiting for said asynchronous transfer mode terminal to become stable, not updating said
4 identified last connect time field to be equal to a predetermined value.

1 20. The method of claim 9, further comprising:

2 when said time value is larger than said predetermined maximum tolerant time, applying
3 a private network-to-network interface protocol in said asynchronous transfer mode switch.